

Catamount Energy Partners

**San Juan Basin
La Plata County CO
Campbell 33-7-4 #1H**

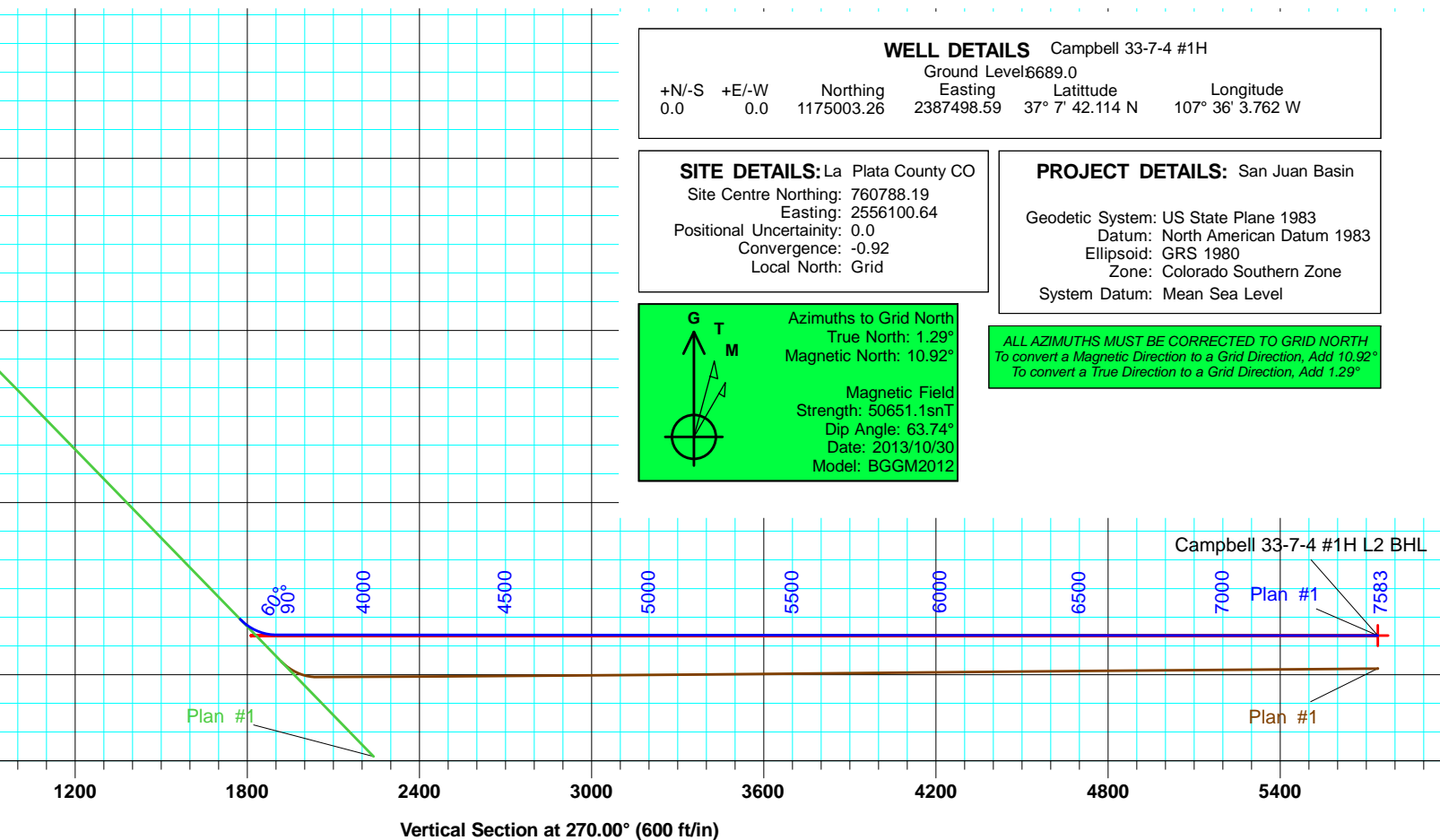
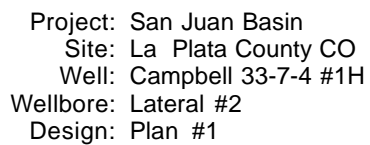
Lateral #2

Plan: Plan #1

Standard Survey Report

30 October, 2013





Company:	Catamount Energy Partners	Local Co-ordinate Reference:	Well Campbell 33-7-4 #1H
Project:	San Juan Basin	TVD Reference:	KB @ 6701.0ft (Original Well Elev)
Site:	La Plata County CO	MD Reference:	KB @ 6701.0ft (Original Well Elev)
Well:	Campbell 33-7-4 #1H	North Reference:	Grid
Wellbore:	Lateral #2	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5000.1 Old

Project	San Juan Basin, Southern Colorado, Fruitland Coal HZ		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Southern Zone		Using geodetic scale factor

Site	La Plata County CO		
Site Position:		Northing:	760,788.19 usft
From:	Lat/Long	Easting:	2,556,100.64 usft
Position Uncertainty:	0.0 ft	Slot Radius:	6-1/8 "
		Latitude:	36° 0' 0.000 N
		Longitude:	107° 0' 0.000 W
		Grid Convergence:	-0.92 °

Well	Campbell 33-7-4 #1H, Fruitland Coal HZ		
Well Position	+N-S	0.0 ft	Northing:
	+E-W	0.0 ft	Easting:
Position Uncertainty		1.0 ft	Wellhead Elevation:
			Latitude:
			Longitude:
			Ground Level:

Wellbore	Lateral #2				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2012	2013/10/30	9.63	63.74	50,651

Design	Plan #1				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	3,564.0	
Vertical Section:	Depth From (TVD) (ft)	+N-S (ft)	+E-W (ft)	Direction (°)	
	0.0	0.0	0.0	270.00	

Survey Tool Program	Date	2013/10/30			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	3,564.0	Plan #1 (Pilot Hole)			
3,564.0	7,582.9	Plan #1 (Lateral #2)			

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
150.0	0.00	0.00	150.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	1.50	295.00	200.0	0.3	-0.6	0.6	3.00	3.00	0.00
300.0	4.50	295.00	299.8	2.5	-5.3	5.3	3.00	3.00	0.00
400.0	7.50	295.00	399.3	6.9	-14.8	14.8	3.00	3.00	0.00
500.0	10.50	295.00	498.0	13.5	-29.0	29.0	3.00	3.00	0.00
600.0	13.50	295.00	595.8	22.3	-47.8	47.8	3.00	3.00	0.00
700.0	16.50	295.00	692.4	33.2	-71.3	71.3	3.00	3.00	0.00
800.0	19.50	295.00	787.5	46.3	-99.3	99.3	3.00	3.00	0.00

Company:	Catamount Energy Partners	Local Co-ordinate Reference:	Well Campbell 33-7-4 #1H
Project:	San Juan Basin	TVD Reference:	KB @ 6701.0ft (Original Well Elev)
Site:	La Plata County CO	MD Reference:	KB @ 6701.0ft (Original Well Elev)
Well:	Campbell 33-7-4 #1H	North Reference:	Grid
Wellbore:	Lateral #2	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5000.1 Old

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
900.0	22.50	295.00	880.9	61.4	-131.8	131.8	3.00	3.00	0.00
1,000.0	25.50	295.00	972.2	78.6	-168.6	168.6	3.00	3.00	0.00
1,100.0	28.50	295.00	1,061.3	97.8	-209.8	209.8	3.00	3.00	0.00
1,200.0	31.50	295.00	1,147.9	118.9	-255.1	255.1	3.00	3.00	0.00
1,300.0	34.50	295.00	1,231.8	142.0	-304.4	304.4	3.00	3.00	0.00
1,400.0	37.50	295.00	1,312.6	166.8	-357.7	357.7	3.00	3.00	0.00
1,500.0	40.50	295.00	1,390.4	193.4	-414.7	414.7	3.00	3.00	0.00
1,600.0	43.50	295.00	1,464.7	221.7	-475.4	475.4	3.00	3.00	0.00
1,700.0	46.50	295.00	1,535.4	251.5	-539.4	539.4	3.00	3.00	0.00
1,716.7	47.00	295.00	1,546.8	256.7	-550.4	550.4	3.00	3.00	0.00
1,800.0	47.00	295.00	1,603.6	282.4	-605.7	605.7	0.00	0.00	0.00
1,900.0	47.00	295.00	1,671.8	313.3	-672.0	672.0	0.00	0.00	0.00
2,000.0	47.00	295.00	1,740.0	344.2	-738.2	738.2	0.00	0.00	0.00
2,100.0	47.00	295.00	1,808.2	375.2	-804.5	804.5	0.00	0.00	0.00
2,170.8	47.00	295.00	1,856.5	397.0	-851.5	851.5	0.00	0.00	0.00
SEC 4-T33N-R7W DW									
2,200.0	47.00	295.00	1,876.4	406.1	-870.8	870.8	0.00	0.00	0.00
2,300.0	47.00	295.00	1,944.6	437.0	-937.1	937.1	0.00	0.00	0.00
2,400.0	47.00	295.00	2,012.8	467.9	-1,003.4	1,003.4	0.00	0.00	0.00
2,500.0	47.00	295.00	2,081.0	498.8	-1,069.7	1,069.7	0.00	0.00	0.00
2,600.0	47.00	295.00	2,149.2	529.7	-1,135.9	1,135.9	0.00	0.00	0.00
2,700.0	47.00	295.00	2,217.4	560.6	-1,202.2	1,202.2	0.00	0.00	0.00
2,800.0	47.00	295.00	2,285.6	591.5	-1,268.5	1,268.5	0.00	0.00	0.00
2,900.0	47.00	295.00	2,353.8	622.4	-1,334.8	1,334.8	0.00	0.00	0.00
3,000.0	47.00	295.00	2,422.0	653.3	-1,401.1	1,401.1	0.00	0.00	0.00
3,100.0	47.00	295.00	2,490.2	684.2	-1,467.4	1,467.4	0.00	0.00	0.00
3,200.0	47.00	295.00	2,558.4	715.1	-1,533.6	1,533.6	0.00	0.00	0.00
3,300.0	47.00	295.00	2,626.6	746.1	-1,599.9	1,599.9	0.00	0.00	0.00
3,400.0	47.00	295.00	2,694.8	777.0	-1,666.2	1,666.2	0.00	0.00	0.00
3,500.0	47.00	295.00	2,763.0	807.9	-1,732.5	1,732.5	0.00	0.00	0.00
3,564.0	47.00	295.00	2,806.7	827.7	-1,774.9	1,774.9	0.00	0.00	0.00
3,580.0	51.48	295.00	2,817.1	832.8	-1,785.9	1,785.9	28.00	28.00	0.00
3,600.0	57.08	295.00	2,828.8	839.6	-1,800.6	1,800.6	28.00	28.00	0.00
3,620.0	62.68	295.00	2,838.8	846.9	-1,816.3	1,816.3	28.00	28.00	0.00
3,640.0	68.28	295.00	2,847.1	854.6	-1,832.8	1,832.8	28.00	28.00	0.00
3,660.0	73.88	295.00	2,853.6	862.6	-1,849.9	1,849.9	28.00	28.00	0.00
3,680.0	79.48	295.00	2,858.2	870.8	-1,867.5	1,867.5	28.00	28.00	0.00
3,700.0	85.08	295.00	2,860.9	879.2	-1,885.5	1,885.5	28.00	28.00	0.00
3,717.6	90.00	295.00	2,861.6	886.6	-1,901.4	1,901.4	28.00	28.00	0.00
3,800.0	90.00	292.53	2,861.6	919.8	-1,976.8	1,976.8	3.00	-0.01	-3.00
3,900.0	89.99	289.53	2,861.6	955.7	-2,070.2	2,070.2	3.00	-0.01	-3.00
4,000.0	89.99	286.53	2,861.7	986.7	-2,165.2	2,165.2	3.00	-0.01	-3.00
4,100.0	89.98	283.53	2,861.7	1,012.6	-2,261.8	2,261.8	3.00	0.00	-3.00

Company:	Catamount Energy Partners	Local Co-ordinate Reference:	Well Campbell 33-7-4 #1H
Project:	San Juan Basin	TVD Reference:	KB @ 6701.0ft (Original Well Elev)
Site:	La Plata County CO	MD Reference:	KB @ 6701.0ft (Original Well Elev)
Well:	Campbell 33-7-4 #1H	North Reference:	Grid
Wellbore:	Lateral #2	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5000.1 Old

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,200.0	89.98	280.53	2,861.7	1,033.4	-2,359.6	2,359.6	3.00	0.00	-3.00
4,300.0	89.97	277.53	2,861.8	1,049.1	-2,458.3	2,458.3	3.00	0.00	-3.00
4,400.0	89.97	274.53	2,861.8	1,059.6	-2,557.8	2,557.8	3.00	0.00	-3.00
4,500.0	89.96	271.53	2,861.9	1,064.9	-2,657.6	2,657.6	3.00	0.00	-3.00
4,514.9	89.96	271.08	2,861.9	1,065.2	-2,672.6	2,672.6	3.00	0.00	-3.00
4,600.0	89.96	271.08	2,862.0	1,066.8	-2,757.6	2,757.6	0.00	0.00	0.00
4,700.0	89.96	271.08	2,862.0	1,068.7	-2,857.6	2,857.6	0.00	0.00	0.00
4,800.0	89.96	271.08	2,862.1	1,070.6	-2,957.6	2,957.6	0.00	0.00	0.00
4,900.0	89.96	271.08	2,862.2	1,072.5	-3,057.6	3,057.6	0.00	0.00	0.00
5,000.0	89.96	271.08	2,862.2	1,074.4	-3,157.5	3,157.5	0.00	0.00	0.00
5,100.0	89.96	271.08	2,862.3	1,076.2	-3,257.5	3,257.5	0.00	0.00	0.00
5,200.0	89.96	271.08	2,862.4	1,078.1	-3,357.5	3,357.5	0.00	0.00	0.00
5,300.0	89.96	271.08	2,862.4	1,080.0	-3,457.5	3,457.5	0.00	0.00	0.00
5,400.0	89.96	271.08	2,862.5	1,081.9	-3,557.5	3,557.5	0.00	0.00	0.00
5,500.0	89.96	271.08	2,862.6	1,083.8	-3,657.4	3,657.4	0.00	0.00	0.00
5,600.0	89.96	271.08	2,862.6	1,085.7	-3,757.4	3,757.4	0.00	0.00	0.00
5,700.0	89.96	271.08	2,862.7	1,087.5	-3,857.4	3,857.4	0.00	0.00	0.00
5,800.0	89.96	271.08	2,862.8	1,089.4	-3,957.4	3,957.4	0.00	0.00	0.00
5,900.0	89.96	271.08	2,862.9	1,091.3	-4,057.4	4,057.4	0.00	0.00	0.00
6,000.0	89.96	271.08	2,862.9	1,093.2	-4,157.4	4,157.4	0.00	0.00	0.00
6,100.0	89.96	271.08	2,863.0	1,095.1	-4,257.3	4,257.3	0.00	0.00	0.00
6,200.0	89.96	271.08	2,863.1	1,097.0	-4,357.3	4,357.3	0.00	0.00	0.00
6,300.0	89.96	271.08	2,863.1	1,098.8	-4,457.3	4,457.3	0.00	0.00	0.00
6,400.0	89.96	271.08	2,863.2	1,100.7	-4,557.3	4,557.3	0.00	0.00	0.00
6,500.0	89.96	271.08	2,863.3	1,102.6	-4,657.3	4,657.3	0.00	0.00	0.00
6,600.0	89.96	271.08	2,863.3	1,104.5	-4,757.3	4,757.3	0.00	0.00	0.00
6,700.0	89.96	271.08	2,863.4	1,106.4	-4,857.2	4,857.2	0.00	0.00	0.00
6,800.0	89.96	271.08	2,863.5	1,108.3	-4,957.2	4,957.2	0.00	0.00	0.00
6,900.0	89.96	271.08	2,863.5	1,110.1	-5,057.2	5,057.2	0.00	0.00	0.00
7,000.0	89.96	271.08	2,863.6	1,112.0	-5,157.2	5,157.2	0.00	0.00	0.00
7,100.0	89.96	271.08	2,863.7	1,113.9	-5,257.2	5,257.2	0.00	0.00	0.00
7,200.0	89.96	271.08	2,863.7	1,115.8	-5,357.1	5,357.1	0.00	0.00	0.00
7,300.0	89.96	271.08	2,863.8	1,117.7	-5,457.1	5,457.1	0.00	0.00	0.00
7,400.0	89.96	271.08	2,863.9	1,119.6	-5,557.1	5,557.1	0.00	0.00	0.00
7,500.0	89.96	271.08	2,863.9	1,121.4	-5,657.1	5,657.1	0.00	0.00	0.00
7,582.9	89.96	271.08	2,864.0	1,123.0	-5,740.0	5,740.0	0.00	0.00	0.00

Campbell 33-7-4 #1H L2 BHL

Company:	Catamount Energy Partners	Local Co-ordinate Reference:	Well Campbell 33-7-4 #1H
Project:	San Juan Basin	TVD Reference:	KB @ 6701.0ft (Original Well Elev)
Site:	La Plata County CO	MD Reference:	KB @ 6701.0ft (Original Well Elev)
Well:	Campbell 33-7-4 #1H	North Reference:	Grid
Wellbore:	Lateral #2	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5000.1 Old

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
SEC 4-T33N-R7W DV	0.00	360.00	2,864.0	0.0	0.0	1,175,003.26	2,387,498.59	37° 7' 42.114 N	107° 36' 3.762 W
- plan misses target center by 1377.6ft at 2170.8ft MD (1856.5 TVD, 397.0 N, -851.5 E)									
- Polygon									
Point 1			2,864.0	1,123.7	-5,740.9	1,176,126.98	2,381,757.58		
Point 2			2,864.0	1,073.2	-1,812.7	1,176,076.48	2,385,685.86		
Point 3			2,864.0	-262.2	-1,845.0	1,174,741.06	2,385,653.56		
Point 4			2,864.0	-144.1	-5,738.1	1,174,859.16	2,381,760.38		
Campbell 33-7-4 #1H	0.00	360.00	2,864.0	1,123.0	-5,740.0	1,176,126.28	2,381,758.49	37° 7' 51.932 N	107° 37' 14.937 W
- plan hits target center									
- Point									

Checked By: _____	Approved By: _____	Date: _____
-------------------	--------------------	-------------